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TITLE : HYDROGEN STORAGE NI-ZR SERIES ALLOY

ABSTRACT : PURPOSE: To offer a hydrogen storage alloy, excellent in corrosion resistance to an alkaline electrolyte, reducing the self-discharge of a storage battery and permitting it to secure high discharging capacity over a long cycle life by limiting the compsn. of an Ni-Zr series alloy.

CONSTITUTION: The above alloy having a compsn. contg., by weight, 10 to 37% Zr, 5 to 30% Ti, 5 to 30% Mn, 1 to 30% Fe, 0.001 to 0.5% Pt or Au, 0.01 to 15% W, 0.01 to 5% Al and the balance Ni with inevitable impurities and having an $MgZn_2$ type crystalline structure is prepd. If required, 0.1 to 16% Cu and/or 0.1 to 15% Cr is added to the above compsn. In this way, this alloy is excellent in corrosion resistance, and particularly in the case the alloy is used as the active material in the negative pole of a closed Ni-hydrogen storage battery, the self-discharge of the storage battery is reduced, and it can furthermore secure high discharging capacity over a long cycle life.

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